zensar

American Insurer Gains an Edge by Modernizing Data Management

Case Study

Overview
Transforming data warehousing

A 110-year-old American jewelry insurance company, holding an "A+ Superior" rating for nearly four decades, wanted to address issues with data operations management and retain its premier position in the industry.

Zensar's brief:
Deploy an integrated data science application, leveraging business intelligence and cloud capabilities, with these key steps:

- Migrate to Google Cloud Platform (GCP) and the latest Astronomer Airflow
- Deploy a containerized environment
- Enable microservices-based application development
- Put in place 24x7x365 support and maintenance

Beyond the brief:
Going beyond helping the business address its priorities, we delivered a solution that improved security, compliance, and disaster recovery (DR), while bringing operational costs down by 30–35 percent.

Challenges
Inefficient data management

The client's IT department faced challenges across the entire data lifecycle:

Data integration, orchestration, and storage: The client's IT team encountered challenges with integrating data from diverse sources and addressing risk assessment issues. It struggled to balance tasks such as data storage, pipeline orchestration, and continuous integration.

Data quality, compliance, and security: Escalating demands related to data quality, real-time processing, robust monitoring and security, and compliance requirements overwhelmed the IT staff. Further, concerns about data replication and DR added to the complexity.

Data mining and cost optimization: The evolving industry landscape necessitated data mining for market intelligence, which was not supported by the existing system. In addition, ineffective cost and resource management was hindering IT agility.

Solution
Transforming the data management landscape

We delivered the solution with a three-pronged approach:

Modernizing the data warehouse
- Collaborated closely with the client's team to engineer a futuristic data warehouse platform, using microservices on Google Kubernetes Engine (GKE).

- Crafted a cloud-based data-driven modernization roadmap, setting the stage for the client's digital evolution.
- Applied agile methodologies for rapid and seamless delivery of a modern data warehouse platform.

Streamlining operations and processes
- Executed ETL data pipelines, seamlessly transferring data from diverse sources to cloud platforms, including Azure Blob Storage and Google Cloud Storage.
- Leveraged DevOps for efficient, consistent, and automated deployment, ensuring operational excellence.
- Deployed industry best practices in alignment with Google Cloud Architecture Framework.

Enhancing security and monitoring
- Assumed full ownership of data operations management, focusing on dynamic monitoring and performance optimization.
- Provided 24/7 managed services, guarding the transformed digital estate effectively.

Solution enablers

Tech stack:
- Google Cloud Dataflow
- Google Cloud Composer built on Apache Airflow
- Google Cloud Apigee API Management
- Google Cloud BigQuery
- Astronomer Airflow
- Docker/Kubernetes
- Git/GitHub
- Jenkins

Impact
Reinforced leadership position

According to internal benchmarks, these results were delivered:

- Reduced operational costs by 30–35 percent
- Rationalized 250 reports
- Cut report generation efforts by up to 30 percent
- Enabled direct-to-consumer (D2C) fulfillment capabilities
- Increased operational efficiency across distribution centers and warehouses
- Simplified the integration through automation

Business outcomes: The solution enabled the client to strengthen the jewelry industry with innovative products and services that meet its evolving needs.

zensar
An RPG Company

At Zensar, we're 'experience-led everything.' We are committed to conceptualizing, designing, engineering, marketing, and managing digital solutions and experiences for over 145 leading enterprises. Using our 3Es of experience, engineering, and engagement, we harness the power of technology, creativity, and insight to deliver impact.

Part of the $4.8 billion RPG Group, we are headquartered in Pune, India. Our 10,000+ employees work across 30+ locations worldwide, including Milpitas, Seattle, Princeton, Cape Town, London, Zurich, Singapore, and Mexico City.

For more information, please contact: **info@zensar.com | www.zensar.com**